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Defining case management success: a qualitative study of case manager perspectives from a large-scale health and social needs support program

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ABSTRACT

Objective Health systems are expanding efforts to address health and social risks, although the heterogeneity of early evidence indicates need for more nuanced exploration of how such programs work and how to holistically assess program success. This qualitative study aims to identify characteristics of success in a large-scale, health and social needs case management program from the perspective of interdisciplinary case managers.

Setting Case management program for high-risk, complex patients run by an integrated, county-based public health system.

Participants 30 out of 70 case managers, purposively sampled to represent their interdisciplinary health and social work backgrounds. Interviews took place in March–November 2019.

Primary and secondary outcome measures The analysis intended to identify characteristics of success working with patients.

Results Case managers described three characteristics of success working with patients: (1) establishing trust; (2) observing change in patients' mindset or initiative and (3) promoting stability and independence. Cross-cutting these characteristics, case managers emphasised the importance of patients defining their own success, often demonstrated through individualised, incremental progress. Thus, moments of success commonly contrasted with external perceptions and operational or productivity metrics.

Conclusions Themes emphasise the importance of compassion for complexity in patients' lives, and success as a step-by-step process that is built over longitudinal relationships.

WHAT IS ALREADY KNOWN ON THIS TOPIC?

⇒ Case management programs to support health and social needs have demonstrated promising yet mixed results. Underlying mechanisms and shared definitions of successful case management are underdeveloped.

WHAT THIS STUDY ADDS?

⇒ Case managers emphasised building trust over time and individual, patient-defined objectives as key markers of success, a contrast to commonly used quantitative evaluation metrics.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY?

⇒ Results suggest that lighter touch case management interventions face limitations without an established patient relationship. Results also support a need for alternative definitions of case management success including patient-centered measures such as trust in one's case manager.

INTRODUCTION

Health system efforts to address both health and social needs are expanding. In the USA, some state Medicaid programmes are testing payments for non-medical services to address transportation, housing instability and food insecurity. Medicaid provides healthcare coverage for lower income individuals and families, jointly funded by federal and state governments. Similarly, social prescribing, or the linking of patients with social needs to community resources, is supported by the UK's National Health Service and has also been piloted by Canada's Alliance for Healthier Communities.[1]

A growing evidence base suggests promising outcomes from healthcare interventions addressing social needs. In some contexts, case managers or navigators providing social needs assistance can improve health[2] and reduce costly hospital use.[3–5] Yet systematic reviews also report mixed results for measures of health and well-being, hospitalisation and emergency department use, and overall healthcare costs.[6–9] Notably, a randomised trial of the Camden Care Coalition programme for patients with frequent hospitalisations due to medically and socially complex needs[10] found no difference in 180-day readmission between patients assigned to a care transitions programme compared with usual hospital postdischarge care. In the care transition programme, patients

received follow-up from a multidisciplinary team of nurses, social workers and community health workers. The team conducted home visits, scheduled and accompanied patients to follow-up outpatient visits, helped with managing medications, coached patients on self-care and connected patients with social services and behavioural healthcare. The usual care group received usual postdischarge care with limited follow-up.[11] This heterogeneity of early evidence indicates a need for more nuanced explorations of how social needs assistance programmes work, and how to holistically assess whether programmes are successful.[12 13]

Social needs case management may lead to health and well-being improvements through multiple pathways involving both material and social support.[14 15] Improvements are often a long-term, non-linear process.[16 17] At the same time, quality measures specific to social needs assistance programmes currently remain largely undefined. Studies often analyse utilisation and cost outcomes but lack granularity on interim processes and markers of success.

In order to translate a complex and context-dependent intervention like social needs case management from one setting to another, these interim processes and outcomes need greater recognition.[18–20] Early efforts to refine complex care measures are underway and call out a need for person-centred and goal-concordant measures.[21] Further research on how frontline social needs case managers themselves define successes in their work could help leaders improve programme design and management and could also inform broader quality measure development efforts.

Our in-depth, qualitative study sought to understand how case managers defined success in their work with high-risk patients. Case managers were employed by CommunityConnect, a large-scale health and social needs care management programme that serves a mixed-age adult population with varying physical health, mental health and social needs. Each case manager's workflow includes an individualised, regularly updated dashboard of operational metrics. It is unclear, however, whether or how these operational factors relate to patient success in a complex care programme. Thus, the case managers' perspectives on defining success are critical for capturing how programmes work and identifying essential principles.

METHODS

Study design and setting

In 2017, the Contra Costa County Health Services Department in California launched CommunityConnect, a case management programme to coordinate health, behavioural health and social services for County Medicaid patients with complex health and social conditions. The County Health Services Department serves approximately 15% (180 000) of Contra Costa's nearly 1.2 million residents. CommunityConnect enrollees were selected based on a predictive model, which leveraged data from multiple county systems to identify individuals most likely to use hospital or emergency room services for preventable reasons. Enrollees are predominantly women (59%) and under age 40 (49%). Seventy-seven per cent of enrollees have more than one chronic condition, particularly hypertension (42%), mood disorders (40%) and chronic pain (35%).[22] Programme goals include improving beneficiary health and well-being through more efficient and effective use of resources.

Table 1 Interview sample

	# Case managers	# Interviewed
Public health nurse	28	9
Substance use counsellor	12	5
Community health worker specialist	9	2
Social worker	8	6
Mental health clinical specialist	7	4
Homeless services specialist	6	4
Total	70	30

Each case manager interviewed in this study worked full time with approximately 90 patients at a time. Case managers met patients in-person, ideally at least once a month for 1 year, although patients sometimes continue to receive ongoing support at the case manager's discretion in cases of continued need. Overall, up to 6000 individuals at a time receive in-person case management services through CommunityConnect, with approximately 200–300 added and 200–300 graduated per month. At the time of the study, CommunityConnect employed approximately 70 case managers trained in various public health and social work disciplines (see table 1, Interview Sample). Case managers and patients are matched based on an algorithm that prioritises mental health history, primary language and county region.

Although case managers bring unique experience from their respective discipline, all are expected to conduct similar case management services. Services included discussing any unmet social needs with patients, coordinating applicable resources and partnering with the patient and patient's care team to improve physical and emotional health. The programme tracks hospital and emergency department utilisation as well as patient benefits such as food stamps, housing or transportation vouchers and continuous Medicaid coverage on an overall basis. Each case manager has access to an individualised dashboard that includes operational metrics such as new patients to contact, and frequency of patient contacts, timeliness for calling patients recently discharged from the hospital, whether patients have continuous Medicaid coverage, and completion of social risk screenings.

Study recruitment

Semistructured interviews were conducted with 30 field-based case managers as part of the programme's

evaluation and quality improvement process. Participants included four mental health clinical specialists, five substance abuse counsellors, six social workers, nine public health nurses, four housing support specialists and two community health worker specialists. Case managers were recruited by email and selected based on purposive sampling to reflect membership across disciplines and experience working with CommunityConnect for at least 1 year. Three case managers declined to participate. Interviews ended when data saturation was achieved.[23]

Interview procedures

Interviews were conducted by five CommunityConnect evaluation staff members (including EEE), who received training and supervision from the evaluation director (EH), who also conducted interviews. The evaluation staff were bachelor and masters-level trained. The evaluation director was masters-level trained and held prior experience in healthcare quality and programme planning.

The evaluation team drafted the interview guide to ask about a variety of work processes and experiences with the goal of improving programme operations including staff and patient experiences. Specific questions analysed for this study were (1) how case managers define success with a patient and (2) examples where case managers considered work with patients a success.

Interviews took place in-person in private meeting rooms at case managers' workplace from March 2019 – November 2019. Interviews lasted 60–90 min and only the interviewer and case manager were present. All interviewers were familiar with CommunityConnect yet did not have a prior relationship with case managers. Case managers did not receive compensation beyond their regular salary for participating in the study and were allowed to opt out of recruitment or end the interview early for any reason. All interviews were audio recorded, transcribed and entered into Nvivo V.12 for analysis.

Patient and public involvement

This project focused on case manager's perspectives and thus did not directly involve patients. Rather, patients were involved through case manager recollections of experiences working with patients.

Data analysis

We used an integrated approach to develop an initial set of qualitative codes including deductive coding of programme processes and concepts, followed by inductive coding of how case managers defined success. All interviews were coded by two researchers experienced in qualitative research (EEE and MK). Themes were determined based on recurrence across interviews and illustrative examples and being described by more than one case manager type. The two researchers identified preliminary themes independently, then consulted with one another to achieve consensus on final themes. Themes and supporting quotes were then presented to the full author team to ensure collective agreement that key perspectives had been included. Preliminary results were also shared at a staff meeting attended by case managers and other staff as an opportunity for feedback on study findings. This manuscript addresses the Standards for Reporting Qualitative Research,[24] and the Consolidated Criteria for Reporting Qualitative Research checklist is provided as an appendix.[25]

All case manager participants provided informed consent. Research procedures were approved by the Contra Costa Regional Medical Center and Health Centers Institutional Review Committee (Protocol 12-17-2018).

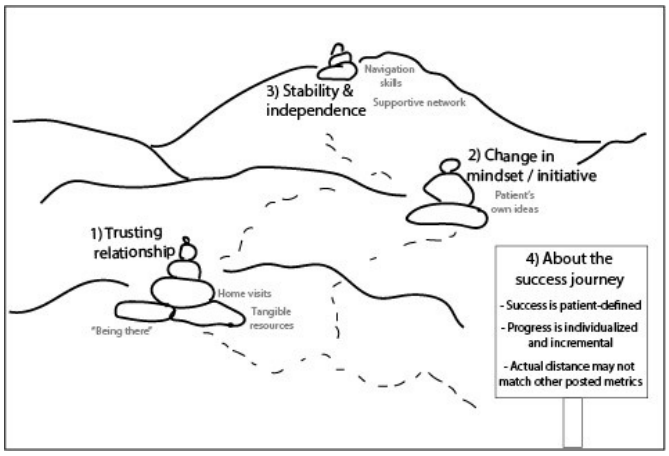

Figure 1 Illustration of key themes.

RESULTS

Case managers frequently and across multiple roles mentioned three characteristics of success when working with patients: (1) establishing trust; (2) fostering change in patients' mindset or initiative and (3) promoting stability and independence. Across these characteristics, case managers expressed that success is patient-defined, with individualised and often incremental progress—a contrast with external perceptions of success and common operational or productivity metrics (see figure 1).

Success is establishing trust

Trusting relationships were the most widely noted characteristic of success. Trust was described as both a product of case managers' consistent follow-up and helpfulness over time and a foundational step to enable progress on patient-centred goals. To build trust, case managers explained, patients must feel seen and heard, and understand the case managers' desire to help: 'Success is to know that she knows me very well…I look for her on the streets, and I'm waiting for her to call me back. Hopefully she knows that when she's ready I will be there at least to provide that resource for her and so it's that personal relationship that you build' (Case manager 11, social worker). Case managers also highlighted the longitudinal relationship required to establish trust, distinguishing success as more than one-time information delivery or navigating bureaucratic processes to procure services.

Case managers also identified trust as foundational to provide better support for patients: 'So they're as honest with me as they can be. That way I have a clear understanding about realistically what I can do to help them coordinate their care or link them to services.' (Case manager 2, mental health clinician specialist). Establishing trust was essential to improve communication with patients and produced an amplifying effect. That is, a case manager's initial help and follow-up builds trust so that patients can be more open, and open communication helps the case manager know what specific services can be most useful. This positive feedback loop further cements trust and builds momentum for a longitudinal relationship.

Permission to have a home visit was mentioned as a valuable indicator of early success in building trust: '(Your home is) your sanctuary', expressed one case manager (Case manager 29, public health nurse), acknowledging the vulnerability of opening one's home to an outsider. For another case manager, regular home visits in the context of a trusting relationship made the case manager aware of and able to address a difficult situation: 'Every time I was going to her home, I was noticing more and more gnats flying around… She said it's because of the garbage…' After establishing trust, the patient allowed the case manager access to the bedroom where the case manager uncovered numerous soiled diapers. The case manager arranged professional cleaning and sanitation through CommunityConnect, after which, 'there was room for a dance floor in her bedroom. There was so much room, and the look on her face, it was almost as if her chest got proud, just in that day. She didn't seem so burdened…So that's a success' (Case manager 4, substance abuse counsellor). Across multiple examples, case managers expressed trust as a critical element for effective patient partnerships.

However, the pathways to building trust are less clear cut. Quick wins through tangible support such as a transportation voucher to a medical appointment could help engage a patient initially. Yet case managers more frequently emphasised strategies based on relationships over time. Strategies included expressing empathy (putting yourself in the patient's shoes), demonstrating respect (especially when the patient has experienced disrespect in other health system encounters), keeping appointments, following through on what you say you will do, calling to check in and 'being there'. Overall, case managers expressed that trust lets patients know they are not alone and sets the stage for future success.

Success is fostering a change in patients' mindset or initiative

Case managers described a change in patients' mindset or initiative as evidence of further success. One case manager explained, 'Really (success) could be a switch in mind state… If I can get someone to consider addressing an issue. Or just acknowledging an issue. That's progress' (Case manager 24, substance abuse counsellor). Another case manager spoke to the importance of mindset by stating, 'what I try to do is not just change the surface of life'. This case manager elaborated, 'You help (a patient) get their housing and they're gonna lose it again, unless they change; something changes in their mindset, and then they see things differently.' (Case manager 6, mental health clinician specialist). Some case managers suggested that the supportive resources they provide are only band-aid solutions if unaccompanied by a changed mindset to address root causes.

Case managers reported that shared goals and plans are essential, in contrast to solutions identified by case managers without patient involvement. 'I can't do everything for them', expressed one case manager (Case manager 21, public health nurse), while others similarly acknowledged that imposing self-improvement goals or providing resources for which a patient may not be ready may be counterproductive. Rather, one case manager emphasised, 'I think it's really important to celebrate people's ideas, their beliefs, their own goals and values'. (Case manager 4, substance abuse counsellor). As an example, the case manager applauded a patient's ideas of getting a driver's license and completing an education certificate. In summary, case managers viewed success as a two-way street where patient's own ideas and motivation were essential for long-term impact.

Success is promoting stability and independence

Case managers also identified patients' stability and independence as a characteristic of success. One case manager stated, 'I define success as having them be more independent in their just manoeuvring the system…how they problem solve' (Case manager 30, public health nurse). Relative to the other characteristics of success, stability and independence more closely built on resources and services coordinated or procured by the case manager. For example, CommunityConnect provides cell phones free-of-charge to patients who do not currently have a phone or continuous service, which has helped patients build a network beyond the case manager: 'Once we get them that cell phone then they're able to make a lot of connections … linking to services on their own. They actually become a lot more confident in themselves is what I've seen'. (Case manager 23, substance abuse counsellor). In another example, a case manager helped a patient experiencing complex health issues to reconcile and understand various medications. For this patient stability means, 'when he does go into the emergency room, it's needed. … even though he's taking his medication like he's supposed to… it's just his health gets bad. So, yea I would say that one (is a success)' (Case manager 8, social worker). Thus, stability represents maintained, improved well-being, supported by care coordination and resources, even while challenges may still be present.

As a step further, 'Absolute success', according to one case manager, '(is when a patient) drops off my caseload and I don't hear from them, not because they're not doing well but because they are doing well, because they are

independent' (Case manager 12, social worker). Patients may still need periodic help knowing who to contact but can follow through on their own. This independence may arise because patients have found personal support networks and other resources that allow them to rely less and less on the case manager. While not all patients reach this step of sustained independence and stability, it is an accomplishment programmatically and for case managers personally.

Success is patient-defined, built on individualised and incremental progress

Case managers widely recognised that success comes in different shapes and sizes, dependent on their patient's situation. Irrespective of the primary concern, many identified the patient's own judgement as the benchmark for success. One case manager explained, 'I define success with my patients by they are telling me it was a success. It's by their expression, it's just not a success until they say it's a success for them' (Case manager 7, social worker). In a more specific example, a case manager highlighted checking in with a patient instead of assuming a change is successful: 'It's not just getting someone housed or getting someone income. Like the male who we're working towards reconciliation with his parents… that's a huge step but if he doesn't feel good about it… then that's not a success.' The same case manager elaborated, 'it's really engaging with the knowing where the patient him or herself is at mentally, for me. Yeah. That's a success' (Case manager 18, homeless services specialist). This comment challenges the current paradigm where, for example, if a patient has a housing need and is matched to housing, then the case is a success. Rather, case managers viewed success as more than meeting a need but also reciprocal satisfaction from the patient.

Often, case managers valued individualised, even if seemingly small, achievements as successes: 'Every person's different you know. A success could be just getting up and brushing their teeth. Sometimes success is actually getting them out of the house or getting the care they need' (Case manager 28, social worker). Another case manager echoed, '(Success) depends on where they're at … it runs the gamut, you know, but they're all successes' (Case manager 10, public health nurse). CommunityConnect's interdisciplinary focus was identified as an important facilitator for tailoring support to individualised client needs. In contrast with condition-specific case management settings, for example, a case manager with substance abuse training noted, 'whether someone wants to address their substance use or not, they still have these other needs, and (with CommunityConnect) I can still provide assistance' (Case manager 24).

However, the individualised and incremental successes are not well captured by common case management metrics. One case manager highlighted a tension between operational productivity metrics and patient success, noting, 'I get it, that there has to be accountability. We're out in the field, I mean people could really be doing just a whole lot of nothing… (Yet), for me I don't find the success in the numbers. I don't think people are a number. Oh, look I got a pamphlet for you, I'm dropping it off… I don't think that that is what's really going to make this programme successful' (Case manager 8, social worker). One case manager mentioned change in healthcare utilisation as a marker of success, but more often, case managers offered stories of patient success that diverge from common programme measures. For example, one case manager observed, 'The clear (successes) are nice: when you apply for Social Security and they get it that's like a hurrah. And then there's other times it's just getting them to the dentist' (Case manager 28, social worker). Another case manager elaborated, 'It's not always the big number—the how many people did I house this year. It's the little stuff like the fact that this 58-year-old woman who believes she's pregnant and has been living outside for years and years, a victim of domestic violence, has considered going inside. Like that is gigantic' (Case manager 18, homeless services specialist). Overwhelmingly, case managers defined success through the interpersonal relationship with their patients within patients' complex, daily life circumstances.

DISCUSSION

Case managers' definitions of success focused on establishing trust, fostering patients change in mindset or initiative, and, for some patients, achieving independence and stability. Examples of success were commonly incremental and specific to an individual's circumstances, contrasting with programmatic measures such as reduction in hospital or emergency department utilisation, benefits and other resources secured, or productivity expectations. Study themes heavily emphasise the interpersonal relationship that case managers have with patients and underscore the importance of patient-centred and patient-defined definitions of success over other outcome measures.

Our results complement prior work on clinic-based programmes for complex patients. For example, interdisciplinary staff in a qualitative study of an ambulatory intensive care centre also identified warm relationships between patients and staff as a marker of success.[26] In another study interviewing clinicians and leaders across 12 intensive outpatient programmes, three key facilitators of patient engagement emerged: (1) financial assistance and other resources to help meet basic needs, (2) working as a multi-disciplinary care team and (3) adequate time and resources to develop close relationships focused on patient goals.[27] Our results concur on the importance of a multi-disciplinary approach, establishing trusting relationships, and pursuing patient-centred goals. Our results diverge on the role of resources to meet basic needs. Case managers in our study indicated that while connections to social services benefits and other resources help initiate the case manager-patient relationship, lasting success involved longer-term relationships in which they

supported patients in developing patients' own goal setting skills and motivation.

An important takeaway from case managers' definitions of success is the 'how' they go about their work, in contrast to the 'what' of particular care coordination activities. For example, case managers emphasise interpersonal approaches such as empathy and respect over specific processes and resource availability. Primary care clinicians, too, have expressed how standard HEDIS or CAHPS quality metrics fail to capture, and in some cases disincentivise, the intuitions in their work that are important for high quality care.[28 29] Complex care management programmes must also wrestle with this challenge of identifying standards without extinguishing underlying quality constructs.

Strengths and limitations

This study brings several strengths, including bringing to light the unique, unexplored perspective of case managers working on both health and social needs with patients facing diverse circumstances that contribute to high-risk of future hospital or emergency department utilisation. The fact that our study explores perspectives across an array of case manager disciplines is also a strength, however a limitation is that we are unable to distinguish how success differed by discipline based on smaller numbers of each discipline in this study sample. Other study limitations include generalisability to other settings, given that all case managers worked for a single large-scale social needs case management programme. Comments around productivity concerns or interdisciplinary perspectives on ways to support patients may be unique to the infrastructure or management of this organisation. In addition, at the time of the study, all case managers were able to meet with patients in-person; future studies may explore whether definitions of success change when interactions become virtual or telephonic as occurred amidst COVID-19 concerns.

CONCLUSION

This study is the first to our knowledge to inquire about holistic patient success from the perspective of case managers in the context of a social needs case management programme. The findings offer important implications for researchers as well as policy makers and managers who are designing complex case management programmes.

Our results identify patient-directed goals, stability and satisfaction, as aspects of social needs case management which are difficult to measure but nonetheless critical to fostering health and well-being. Case managers indicated these aspects are most likely to emerge through a longer-term connection with their patients. Thus, while resource-referral solutions may play an important role in addressing basic needs,[30] our findings suggest that weak patient–referrer rapport may be a limitation for such lighter touch interventions. The need for sustained rapport building is also one explanation why longer time horizons may be necessary to show outcome improvements in rigorous studies.[16]

Relatedly, results point to trusting relationships as an under-recognised and understudied feature of social needs case management. Existing research finds that patients' trust in their primary care physician is associated with greater self-reported medication adherence[31] along with health behaviours such as exercise and smoking cessation.[32] Similar quantitative results have not yet been illuminated in social needs case management contexts, yet the prominence of trusting relationships in this study as well as other sources[26 27 33 34] suggests that measures of trust should be used to complement currently emphasised outcomes such as inpatient and outpatient utilisation. Future research and programme evaluation will need to develop new trust measurement or modify existing trust measures for the social needs case management context.[31 35]

In summary, study themes provide waypoints of how to conceptualise programme design, new staff training and potential measurement development for complex case management programmes like CommunityConnect. Despite the broad swath of social needs addressed, case managers coalesced on establishing a trusting relationship as a necessary foundation to appropriately identify needs and facilitate connections. Second, fostering patients' own ideas, including a change their mindset or initiative, was important to fully make use of programme resources. Third, supporting new-found independence or stability was a gratifying, but not universally achieved marker of success. Commonly, case managers highlighted moments of success with mindfulness toward small victories, illuminating that success is non-linear with no certain path nor single end point. Themes emphasise the importance of bringing compassion for the complexity in patients' lives and developing collaborative relationships one interaction at a time.

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Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval This study involves human participants and was approved by Contra Costa Regional Medical Center and Health Centers Institutional Review Committee (Protocol 12-17-2018). Participants gave informed consent to participate in the study before taking part.

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REFERENCES

1 Bloch G, Rozmovits L. Implementing social interventions in primary care. *CMAJ* 2021;193:E1696–701.
2 Gottlieb LM, Hessler D, Long D, *et al*. Effects of social needs screening and in-person service navigation on child health: a randomized clinical trial. *JAMA Pediatr* 2016;170:e162521.
3 Kangovi S, Mitra N, Norton L, *et al*. Effect of community health worker support on clinical outcomes of low-income patients across primary care facilities: a randomized clinical trial. *JAMA Intern Med* 2018;178:1635–43.
4 Pantell MS, Hessler D, Long D, *et al*. Effects of in-person navigation to address family social needs on child health care utilization: a randomized clinical trial. *JAMA Netw Open* 2020;3:e206445.
5 Schickedanz A, Sharp A, Hu YR, *et al*. Impact of social needs navigation on utilization among high utilizers in a large integrated health system: a quasi-experimental study. *J Gen Intern Med* 2019;34:2382–9.
6 Gottlieb LM, Wing H, Adler NE. A systematic review of interventions on patients' social and economic needs. *Am J Prev Med* 2017;53:719–29.
7 Hopman P, de Bruin SR, Forjaz MJ, *et al*. Effectiveness of comprehensive care programs for patients with multiple chronic conditions or frailty: a systematic literature review. *Health Policy* 2016;120:818–32.
8 McGregor J, Mercer SW, Harris FM. Health benefits of primary care social work for adults with complex health and social needs: a systematic review. *Health Soc Care Community* 2018;26:1–13.
9 Iovan S, Lantz PM, Allan K, *et al*. Interventions to decrease use in prehospital and emergency care settings among super-utilizers in the United States: a systematic review. *Med Care Res Rev* 2020;77:99–111.
10 Gawande A. *Finding medicine's hot spots*. 17. The New Yorker, 2011.
11 Finkelstein A, Zhou A, Taubman S, *et al*. Health Care Hotspotting - A Randomized, Controlled Trial. *N Engl J Med* 2020;382:152–62.
12 Fichtenberg CM, Alley DE, Mistry KB. Improving social needs intervention research: key questions for advancing the field. *Am J Prev Med* 2019;57:S47–54.
13 Cutts T, Gunderson G. Evaluating two mysteries: Camden coalition findings. *NAM Perspect* 2020;2020. doi:10.31478/202007d. [Epub ahead of print: 27 07 2020].
14 Glied S. Better housing improves people's lives—health benefits should be seen as a bonus. *Milbank Q* 2020.
15 Berkowitz SA, Hulberg AC, Placzek H, *et al*. Mechanisms associated with clinical improvement in interventions that address health-related social needs: a mixed-methods analysis. *Popul Health Manag* 2019;22:399–405.
16 Lantz PM. "Super-Utilizer" Interventions: What They Reveal About Evaluation Research, Wishful Thinking, and Health Equity. *Milbank Q* 2020;98:31–4.
17 Cannuscio CC, Feuerstein-Simon R. Putting health at the center of care management. *JAMA Health Forum* 2020;1:e200219.
18 Stirman SW, Miller CJ, Toder K, *et al*. Development of a framework and coding system for modifications and adaptations of evidence-based interventions. *Implement Sci* 2013;8:65.
19 Chambers DA, Norton WE. The adaptome: advancing the science of intervention adaptation. *Am J Prev Med* 2016;51:S124–31.
20 Nembhard IM, Cherian P, Bradley EH. Deliberate learning in health care: the effect of importing best practices and creative problem solving on hospital performance improvement. *Med Care Res Rev* 2014;71:450–71.
21 Bossley H, Imbeah K. *Measuring complexity: moving toward standardized quality measures for the field of complex care*, 2020.
22 Brown D, Hernandez E, Stribling A. *Communityconnect interim program evaluation (2017-2019)*, 2019.
23 Creswell JW, Poth CN. *Qualitative inquiry and research design: choosing among five approaches*. Sage publications, 2016.
24 O'Brien BC, Harris IB, Beckman TJ, *et al*. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med* 2014;89:1245–51.
25 Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007;19:349–57.
26 Chan B, Hulen E, Edwards ST. It's like riding out the choas: Perspectives of clinicians and staff on caring for high-utilizer patients in the summit intensive ambulatory care trial. *Ann Fam Med* 2019;17:495–501.
27 Zulman DM, O'Brien CW, Slightam C, *et al*. Engaging high-need patients in intensive outpatient programs: a qualitative synthesis of engagement strategies. *J Gen Intern Med* 2018;33:1937–44.
28 Young RA, Roberts RG, Holden RJ. The challenges of measuring, improving, and reporting quality in primary care. *Ann Fam Med* 2017;15:175–82.
29 Casalino LP. The unintended consequences of measuring quality on the quality of medical care. *N Engl J Med* 1999;341:1147–50.
30 Ruiz Escobar E, Pathak S, Blanchard CM. Screening and referral care delivery services and unmet health-related social needs: a systematic review. *Prev Chronic Dis* 2021;18:E78.
31 Thom DH, Ribisl KM, Stewart AL, *et al*. Further validation and reliability testing of the trust in physician scale. *Med Care* 1999;37:510–7.
32 Thom DH, Hall MA, Pawlson LG. Measuring patients' trust in physicians when assessing quality of care. *Health Aff* 2004;23:124–32.
33 O'Brien CW, Breland JY, Slightam C, *et al*. Engaging high-risk patients in intensive care coordination programs: the engagement through caring framework. *Transl Behav Med* 2018;8:351–6.
34 Komaromy M, Madden EF, Zurawski A, *et al*. Contingent engagement: what we learn from patients with complex health problems and low socioeconomic status. *Patient Educ Couns* 2018;101:524–31.
35 Sturgiss EA, Rieger E, Haesler E, *et al*. Adaption and validation of the working alliance inventory for general practice: qualitative review and cross-sectional surveys. *Fam Pract* 2019;36:516–22.